

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



85

LIBRARY  
RECEIVED  
★ NOV 23 1927  
U. S. DEPARTMENT OF AGRICULTURE

MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY  
UNITED STATES DEPARTMENT OF AGRICULTURE

---

Number 162

October, 1927

---

DOCTOR MARLATT BECOMES CHIEF OF BUREAU

On October 17 Dr. Howard retired as Chief of the Bureau of Entomology and introduced to the Washington personnel his successor, Dr. C. L. Marlatt. At the request of both Dr. Howard and Dr. Marlatt the reception was very informal.

Dr. Howard returned to Washington early in October after spending July, August, and September on official business in Europe. In England he visited the British Museum of Natural History, the Rothamsted Experiment Station at Harpenden, the new Mosquito Control Institute at Hayling Island, the new parasite laboratory of the Imperial Bureau of Entomology at Farnham Royal, the Wellcome Field Laboratory at Wisley, and the Moltino Institute at Cambridge. In France, he visited Dr. Marchal's laboratory in Paris, the Pasteur Institute, and the laboratory of the U. S. Bureau of Entomology at Hyres. In Germany, he visited the Deutsches Entomologisches Institut and the Biologischen Reichs-Anstalt at Berlin-Dahlem, and Dr. K. Escherich's laboratories in Munich. He also visited Poland, Czechoslovakia, Austria, and Jugoslavia, and attended the Tenth International Zoological Congress at Budapest.



## CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, Senior Entomologist, in Charge

In October B. E. Hodgson, of the Arlington, Mass., field laboratory, with seven assistants, has been collecting the regular annual comparative data concerning the infestation of the European corn borer in New England.

B. E. Hodgson and D. W. Jones, also of the Arlington field laboratory, recently visited, at Yarmouth, Me., the Maine experimental project for studying the European corn borer.

B. E. Hodgson and his assistants have recently made a survey in the region about New York Bay to determine the present intensity of infestation of the corn borer and to ascertain the number of generations in that area.

Recently C. H. Batchelder, of the Arlington field laboratory, visited the Boyce-Thompson Institute, Yonkers, N. Y., in connection with his chemotropic and chemotactic investigations, after which he and Milton Ryberg went to New Brunswick, N. J., and conferred with T. J. Headlee, State Entomologist of New Jersey.

From October 6 to October 21 W. R. Walton, of the Washington office, was in Toledo, Ohio, at the headquarters of the corn borer control organization, assisting in the preparation of various reports upon the progress of the work.

A shipment of 1,700 specimens of *EXERISTES ROBULATOR* Fab. has been sent from the Monroe, Mich., field laboratory to Guam, to aid in the fight there against an increasing infestation of the European corn borer.

The third annual conference of the International European Corn Borer Organization was held September 21 to 23 in Ohio, Michigan, and Ontario, with a final meeting in Detroit. Among the participants from the Bureau of Entomology were D. J. Caffery, Philip Luginbill, D. W. Jones, L. H. Patch, H. N. Bartley, and L. B. Scott.

From October 6 to 14 D. J. Caffrey, L. H. Patch, P. A. Howell, N. Trade, and Fred Sleeth, of the corn borer investigations at Toledo and Sandusky, Ohio, A. B. Baird and other entomologists of the Canadian staff, and R. B. Gray, David Isler, Frank Irons, and Henry Clay, engineers, conducted field experiments with machinery for control of the corn borer in a badly infested cornfield near Amherstburg, Ontario.

Delos L. Van Dine, jr., son of D. L. Van Dine, the well-known entomologist, was killed in an accident at Jaronu, Cuba, on October 20. As a temporary appointee of the Bureau of Entomology he was rendering excellent service in collecting and forwarding from Cuba to Louisiana and Florida certain parasites of the sugar-cane moth borer.



In the latter part of October H. D. Smith, of the Carlisle, Pa., field laboratory, made a survey in various counties of Pennsylvania in connection with work on the Hessian fly.

---

## BEE CULTURE INVESTIGATIONS

James I. Hambleton, Apiculturist, in Charge

Dr. W. W. Alpatov, of the University of Moscow, one of the outstanding apicultural workers of Russia, is in this country pursuing his work on variability in the honeybee. He was particularly desirous of continuing his work on variability in this country because of the distinct advantages offered in the United States, as in Russia, by the great range in latitude in both countries. His work here is being done with Prof. Raymond Pearl, of the Institute for Biological Research at Johns Hopkins University.

Lloyd M. Bertholf, Junior Biologist in Apiculture, who is on the summer staff of the Laboratory, has resigned and will continue his work on the reaction of the honeybee to light of varying intensity and color at Johns Hopkins University. He has been awarded the much coveted Bruce Fellowship.

An item of economic interest is the recent great increase in the exportation of honey. This increase parallels the recent activities of various governmental agencies in promoting foreign trade in honey. During the fiscal year ended June, 1926, only about three million pounds of honey was exported, whereas about eleven million pounds was exported in the year ending June, 1927.

The Bee Culture Laboratory, in using the Standard Honey Color Grader, has found that washing the honey trough after grading a sample is greatly facilitated by using a dam of rubber to confine the honey to the part of the trough required for that particular sample, thus keeping the honey out of the narrow end of the wedge, which is the difficult part to cleanse, the narrow part being required for the darker honeys only. Pieces of rubber cut from an ordinary eraser answer the purpose excellently.

A cooperative honey-marketing association has been formed in Ohio, based on one of the commercial beekeepers' associations. As the members of this association have been working together for a long time, not having missed a monthly meeting in ten years, the new organization should be successful. All the honey sold by the association will be graded according to the United States Grades recently adopted by the Department of Agriculture.



## TROPICAL AND SUBTROPICAL PLANT INSECT INVESTIGATIONS

A. C. Baker, Senior Entomologist, in Charge

Early in September Dr. Baker returned to the Rio Grande Valley of Texas for the purpose of organizing a force to handle the eradication of the Mexican fruit worm. Up to this time energies had been devoted to maintaining a host-free period by the destruction of all remaining host fruits in the Valley. The present season's maturing crop demanded the second phase of the Department's efforts, i.e., careful inspection of all groves and certification of fruit for interstate movement. The skeleton of the organization established is composed of the following personnel. It is being filled out by temporary men in the respective districts as required.

Field Headquarters. 503 Baxter Building, Harlingen, Tex. Telephone 592. Paul A. Hoidale, in charge of project; K. H. Townsend, in charge of administrative office; Miss Emma Roe, stenographer.

District Inspectors. Brownsville, A. V. Smith; San Benito, Adolph Thomae; Harlingen, W. R. Hurd; La Feria, J. M. Worsham; Mercedes, W. W. Decell; Weslaco, E. F. Pepper; Donna, J. U. Gilmore; Pharr, J. W. Patterson; McAllen, K. B. McKenney; Mission, L. G. Plyler and D. W. Grimes. Mr. Gilmore and Mr. McKenney have been temporarily transferred from Truck Crop Insect Investigations. Mr. Worsham is a State employe who has been assigned in cooperative arrangement by Mr. McDonald, State Entomologist.

Determination. Brownsville, F. H. Benjamin. Mr. Benjamin is an employe of the Federal Horticultural Board, who works as an integral part of the organization in determining all larvae found.

James Zetek, who has been in the Rio Grande Valley of Texas, advising in connection with the program of eradication of the Mexican fruit worm, made a visit in September to the Mexican district about Tampico to report on the area as a possible location for a laboratory for the study of this insect. After returning to the Valley for a short time, he visited the laboratory in New Orleans and returned to his home station at Ancon, C. Z. His knowledge of tropical fruits and fruit flies, as well as his fluent Spanish, was of much value in connection with the whole program.

I. Molino, of the Canal Zone laboratory, arrived in the United States on extended leave in the early part of October. After visiting museums in New York and Boston, and a trip to Chicago, he will report for duty in New Orleans on December 1. After becoming acquainted with the work in New Orleans he will visit the Florida laboratory to familiarize himself with citrus conditions there, and will spend some time at the contemplated Mexican laboratory before returning to the Canal Zone. Mr. Molino is a native Panaman and his familiarity with Latin-American conditions will enable him to assist materially in the organization of the Mexican work.

Dr. S. B. Fracker, in charge of Domestic Quarantines of the Federal Horticultural Board, visited the field laboratory at New Orleans in the last week in October. Dr. Fracker was on his way to Texas, where he will study the Mexican fruit worm and pink boll worm situations.



Miss B. M. Broadbent, who has been in California temporarily assisting Dr. F. R. Cole on bulb-fly studies, left there in the latter part of October to join the staff of the New Orleans laboratory. She will have with her all the accumulated records on the cyanide treatment of ornamentals, and will review this entire field with Dr. C. I. Bliss and his associates.

C. F. Doucette, who has been in charge of the bulb-fly work in the Northwest, arrived in Washington in the latter part of October for consultation in regard to bulb-insect problems. He was then returning from Europe, where he attended the convention of the American Legion. He visited the bulb cultures of Holland and England, and learned much that will be of value in handling the bulb situation in this country.

E. A. McGregor, of the Lindsay, Calif., field laboratory, reports that he participated in the program of the Annual Citrus School held at Lindsay under the auspices of the Agricultural Extension Service of the University of California. The subject of Mr. McGregor's discussion was "Citrus Thrips Control." The members of the school later visited certain of the citrus thrips control plots in the groves.

A. J. Ackerman, of the Bentonville, Ark., field laboratory, Deciduous-Fruit Insect Investigations, went late in October to the field laboratory in New Orleans, for conference on data dealing with the biology of leafhoppers gathered at the Bentonville Laboratory during the past several years. He expects to be there for some time.

---

#### FOREST INSECT INVESTIGATIONS

F. C. Craighead, Senior Entomologist, in Charge

Dr. Craighead spent the third week of October at Asheville, N. C., with J. A. Beal and R. A. St. George in making a final examination of some experimental work of the summer. One of the interesting results is the demonstration of the ability of *DENDROCTONUS FRONTALIS* to increase from 1,000 to 1,500 per cent in one generation. William Middleton joined the party in the fourth week in October to lend a hand in completing the examination before cold weather.

Dr. T. E. Snyder reports that the Pacific Coast Building Officials Conference, at a meeting held at Phoenix, Ariz., October 18 to 21, inclusive, adopted without question the regulations proposed by pathologists, foresters, and entomologists for preventing termite injury and decay in buildings. Dr. Snyder is continuing his trip of inspection of damage by termites to Hawaii, where he will spend about two weeks, returning to Washington about December 1.



## TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Senior Entomologist, in Charge

R. E. Campbell, Alhambra, Calif., reports that Dr. S. P. Minkiewicz, of Pulaway, Poland, visited the Alhambra and Garden Grove, Calif., laboratories on October 3 and 4.

R. E. Campbell attended a meeting of State, County, and Federal entomologists, and plant pathologists, horticultural commissioners, and health and pure food inspectors and administrators, at Berkeley, Calif., on Oct. 11, at which recommendations for the spraying of lettuce and celery were considered.

K. L. Cockerham, Biloxi, Miss., reports that B. L. Boyden and J. W. McGlamery, of the Tampa, Fla., laboratory, visited Biloxi on October 17, and discussed work relative to the eradication of the sweet-potato weevil and the occurrence of sea-side morning glories along the beach and adjacent islands.

F. S. Chamberlin, Quincy, Fla., visited Washington, en route to Massachusetts, on October 3. He returned October 21 to Washington, where he spent a few days in research and library work, after which he completed the round trip, reaching Quincy October 28.

Rodney Cecil, in charge of the Geneva, N. Y., Mexican bean beetle field laboratory, was transferred to Columbus, Ohio, on October 25.

Troy Thompson, who for nearly six years has been engaged in the work of controlling the sweet potato weevil in southern Mississippi, resigned October 31 to become connected with the Alabama State Department of Agriculture.

The temporary appointments of V. E. Romney and F. H. Hall, Twin Falls, Idaho, and O. R. Causey, Chadbourn, N. C., were terminated in the month of October. K. B. McKinney and Joe Milam, Clarksville, Tenn., have been temporarily transferred to inspection work on the pink bollworm, under the direction of the Federal Horticultural Board.

---

## GIPSY MOTH AND BROWN-TAIL INVESTIGATIONS

A. F. Burgess, Senior Entomologist, in Charge

A. F. Burgess attended the conference and field meetings of the International Corn Borer Organization on September 21 to 23, inclusive. Infested areas in Ohio, Michigan, and Ontario were visited and methods of control work were observed. The return trip was made through Washington, D. C., in order to attend hearings and confer with Bureau officials.

On September 12 R. T. Webber returned from a trip to Europe and northern Africa, having spent seven months abroad in collecting and sending parasites of the gipsy moth to Melrose Highlands.



The following were among the visitors at the office or laboratory in September and October: Dr. C. L. Marlatt and family, of Washington, D. C., Professor W. C. O'Kane, of New Hampshire, Professor R. A. Cooley, of Montana, H. C. Hallock and H. A. Jaynes, of the Japanese Beetle laboratory at Riverton, N. J., M. E. Ryberg, of the Bureau of Entomology, stationed at the Boyce-Thompson Institute, Yonkers, N. Y., C. H. Batchelder, of the European Corn Borer laboratory, Arlington, Mass., and C. F. Doucette, of the Puyallup, Wash., field laboratory of the Division of Tropical and Subtropical Plant Insect Investigations. Mr. Doucette had just returned from his trip to Europe.

---

#### TAXONOMIC INVESTIGATIONS

S. A. Rohwer, Senior Entomologist, in Charge

George M. Greene, of Harrisburg, Pa., has donated his valuable collection of insects to the National Museum. Mr. Greene began collecting in 1893, specializing in the Coleoptera. His collection contains about 48,000 specimens, 42,000 being Coleoptera, all well mounted, labeled, and determined. H. S. Barber and C. T. Greene went to Philadelphia on October 28 and brought the collection to Washington by automobile.

J. C. Crawford, of the North Carolina State Department of Agriculture, stationed at Black Mountain, N. C., arrived in Washington October 31 and will spend about ten days here comparing material in the collection of bees. He will then go to Philadelphia and spend some time in the Academy of Sciences.

R. C. Williams, jr., of Philadelphia, and Ernest Bell, of Flushing, N. Y., worked with Dr. Schaus on the collection of Hesperidae for several days about the middle of October.

Dr. Schaus went to New York City October 27 for a three days' visit, and brought back with him a very beautiful lot of moths which were given to the National Museum by Mr. Frank Johnson, of that city.

Dr. H. G. Dyar went to New York October 22, and while there examined some types of Limacodidae in the American Museum of Natural History.

Mrs. Doris H. Blake returned to Washington October 10, after spending the summer working in the California Academy of Sciences and in the Museum of Comparative Zoology at Cambridge, and in collecting in California, Arizona, and Wyoming. She is now working up the collected material with the aid of the Coleoptera collections in the National Museum.

R. A. Cushman left Washington October 2 for the Philippine Islands, where he will pack and ship the C. F. Baker collection of insects which was bequeathed to the U. S. National Museum. Word was received from him in Seattle that his preparations were completed and that he was ready to sail for Manila on October 11.



LIBRARY

Mabel Colcord, Librarian

NEW BOOKS

Bahr, Fritz.

Fritz Bahr's commercial floriculture . . . Ed. 2, rev. 615 p., illus. N. Y., De La Mare Company, inc., 1927.

Beckman, F. W.

Technical writing of farm and home. 417 p. Ames, Ia., Journalism Pub. Co., 1927.

Bilasing, S. W.

The life history and control of the pecan nut case bearer. 77 p., illus. Columbus, Ohio State University, 1924. (Dissertation for the degree of Ph. D.)

Bodemeyer, Bodo v.

Ueber meine entomologischen Reisen nach Kleinasien (1911), Ost-Sibirien und Amur (1912), Tunis, Oasis Gafsa, Khroumerie (1913), und Iran, das Elburgsgebirge (1914). Bd. I. Kleinasien. 85 p. Stuttgart, Alfred Kern, 1927.

Brassler, K.

Die Bekämpfung der Dasselplage. 28 p., illus. Berlin, J. Wieseke, 1926.

British Museum (Nat. Hist.) Dept. of Zoology.

Guide to the Crustacea exhibited in the Department of Zoology, British Museum (Natural History). 81 p., illus. London, 1927.

Brittain, W. H.

The cabbage maggot (*Hylemyia brassicae*). 48 p., illus., 2 pl. (Halifax), Nova Scotia, J. A. Walker, 1927. (Nova Scotia Dept. Nat. Resources, Bul. 11.)

Brohmer, P., Erhmann, P., and Ulmer, G., ed.

Die Tierwelt Mitteleuropas. Bd. 4, Lfg. 2; Bd. 6, Lfg. 1; Bd. 7, Lfg. 3. Leipzig, Quelle & Meyer, 1927. Bd. 4, Lfg. 2, Bd. 6, Lfg. 1, Insekten I-II; Bd. 7, Lfg. 3, Wirbeltiere. "Literatur" at ends of sections.

Catalogue of Indian insects pt. 12. Tabanidae, by R. Senior-White. 70 p. Calcutta, Central Publications Branch, 1927.

Childs, J. B.

An account of government document bibliography in the United States and elsewhere. 30 p. Washington, D. C., Government Printing Office, 1927. At head of title: Library of Congress.

Cluyt, D. O.

Vande byen. 1. Haer wonderlicke oorsprongh . . . 207 p. Amsterdam, B. Janoz, 1648.

Conference internationale du ble, Rome, 1927.

Le "soune" ou "sen" (*Eurygaster integriceps*) et ses degats en Syrie et en Perse. Rome, international Institut d'Agriculture, 1927.

Copello, Andres.

. . . Biologia del moscardon cazador de abejas (*Mallophora ruficauda*, Wied.) 19 p., illus. Buenos Aires, Ministerio de Agricultura de la Nacion, 1927. (Republica Argentina, Ministerio de Agricultura, Seccion propaganda e informes Secretaria tecnica No. 699.)



Covell, G.

. . . A critical review of the data recorded regarding the transmission of malaria by the different species of Anopheles, with notes on distribution, habits and breeding places. 117 p. Calcutta, Thacker-Spink & Co., 1927, (Indian Med. Research Mem. No. 7, July, 1927.) References, p. 95-111.

Crawford, J. A., and Chalam, B. S.

Mosquito reduction and malarial prevention. A precis. 102 p., plates. London & N. Y., Oxford University Press, 1926. (Bibliography, p. 83.)

Delassus, M., et al.

Les ennemis des cultures fruitieres en Algerie et les moyens pratiques de les combattre, par M. Delassus, A. Balachowsky, J. Brichet [et] A. Lepigre. 197 [2] p., illus. Alger, La Typo-Litho [1927?].

Dodd, A. P.

The genus Scelio Latreille in Australia (Hymenoptera; Proctotrypoidea). Proc. Royal Soc. Queensland, v. 38, p. 127-175, Feb. 10, 1927.

Froggatt, W. W.

Forest insects and timber borers. 107 p. Sydney, A. J. Kent, Government Printer, 1927.

Goetghebuer, M.

. . . Dipteres (nematoceres) Chironomidae Tanyrodinae. 83 p., illus. Paris. P. Lechevalier, 1927. (Federation Francaise des Societes de Sciences Naturelles. Office central de Faune faunistique de France [t.] 15.) "Index Bibliographique," p. [78] - 80.

Griffini, Achille.

Coleotteri Italiani. 334, 32 p., illus. Milano, Ulrico Hoepli, 1894. (Manuali Hoepli I.)

Handbuch der Entomologie, hrsg. Christoph Schroder. Lfg. 34 u. 35 (Bd. 2, Bogen 49-57). Jena, Fischer, 1927. Kapitel 7. (Die geographische Verbreitung der Insekten (Forsetzung), Karl Holdhaus, Wien, p. 771-914.)

Hartmann, Johannes.

Die tierischen Schadlinge der landwirtschaftlichen Nutzpflanzen. 80 p., illus., col. pl. Leipzig, Hochmeister & Thal, 1925.

Jekel, H.

C. J. Schoenherr, Genera et species Curculionidum catalogus. 279 p. Parisiis, Apud. H. Jekel, 1849.

Houlbert, C. V.

Thysanoures, dermapteres et orthopteres de France et de la faune europeenne. v. 2. Paris, O. Doin, 1927. ("Index bibliographique," p. [323] - 338.)

Kuntzsch, Max.

. . . Imkerfragen. 5 Aufl. v. 1. Berlin-Halensee, A. Stein, [1926?].

Lammert, A.

Uber Pigmentwanderung im Punktauge der Insecten sowie uber Licht und Schwerkraftreaktionen in Schmetterlingsraupen. Zeits. f. Wissens. Biol. Abt. C. (Zeits. f. Vergleich. Physiol.) Bd. 3, Hft. 3, p. 225-278, 1925. (Literaturverzeichnis, p. 227-278.)



Leng, C. W., & Mutchler, A. J.

Supplement 1919 to 1924 (inclusive) to Catalogue of the Coleoptera of America north of Mexico. 78 p. Mount Vernon, N. Y., J. D. Sherman, 1927.

Light, S. F.

A new and more exact method of expressing important specific characters of termites. Univ. of California Publications in Entomology, v. 4, No. 5, p. 78-88, illus., Sept. 3, 1927.

Machida, Jiro.

On the secretion of the silk substance in the silkworm (*Bombyx mori* L.). Jour. Col. Agr. Imp. Univ. Tokyo, v. 9, No. 2, p. 119-138, pl. III, March 30, 1927 (Literature cited, p. 137.)

Mexico - Secretaria de agricultura y fomento - Oficina para la defensa agricola. Estudios sobre las plagas de las plantas y de los animales de Mexico . . . No. 1. Tacubaya, D. F., 1927.

Miles, H. W., and Petherbridge, F. R.

Investigations on the control of wireworms. Annals of Applied Biology, v. 14, No. 3, p. 359-387, illus., pl. XXIV-XXV, August, 1927. (Bibliography, p. 387.)

Niijima, Y., and Kinoshita, E.

Die Untersuchungen uber Japanische Melolonthiden III . . . Sapporo, Japan, 1927. 97 p., 3 pl. Reprinted from the Research Bulletin of the College of Agriculture, Hokkaido, Imperial University, Sapporo, Japan, v. 4, 1927.

Pagenstecher, H. A.

Beitrage zur Anatomie der Milben . . . Hft. I-II. *Ixodes ricinus*. Leipzig, Wilhelm Engelmann, 1860-1861. (32 p., 2 pl., and 45 p., 2 pl., respectively.)

Perrier, Remy.

La faune de la France en tableaux synoptiques illustres, fasc. 5, Coleopteres. I. ptie. 192 p., illus. Paris, Librairie Delagrave, 1927.

Sarton, George.

Introduction to the history of science. v. 1. Baltimore, Pub. for the Carnegie Institution of Washington by the Williams and Wilkins Company, 1927. (Carnegie Institution of Washington Publication No. 276.) (Contents: v. I. From Homer to Omar Khayyam.)

Sasaki, Chujiro.

*Tyroglyphus muscae*, a mite infesting *Sturmia sericariae*, a fly noxious to the silkworm. Jour. Col. Agr. Imp. Univ. Tokyo, v. 9, No. 3, p. 151-158, pl. VI, Aug., 1927.

Schwetz, J.

Synopsis des moustiques connus du Congo Belge avec quelques commentaires et considerations par le docteur Schwetz (avec la collaboration de F. W. Edwards). Revue Zool. Africaine, v. 15, fasc. 3, p. 271-319, June 15, 1927.

Smit, Bernard, and Du Plessis, S.

The distribution of blow-flies in South Africa with special reference to those species that attack sheep. 19 p., tab., diagrs. Pretoria, Govt. Printing and Stationery Office, 1927. (Union of South Africa Dept. Agr. Bulletin No. 13.)



Strickland, C., and Choudhury, K. L.

An illustrated key to the identification of the anopheline larvae of India, Ceylon and Malaya, west of Wallace's line, with practical notes on their collection, with a foreword by Ronald Ross. 67 p., 12 pl. Calcutta & Simla, Thacker, Spink & Co., 1927. (References, p. 65-67.)

Tryon, Henry.

Queensland fruit flies (Trypetidae). Series I. Proc. Royal Soc. Queensland, v. 38, p. 176-223, pl. XX-XXIV, Feb. 10, 1927.

Uchida, Seinosuke.

Studies on the amblycerous Mallophaga of Japan. Jour. Col. Agr. Imp. Univ. Tokyo, v. 9, No. 1, p. 1-56, illus. Aug. 15, 1926.

Watson, L. R.

Controlled mating of queen bees. 50 p., illus. American Bee Journal, Hamilton, Ill., 1927. (Bibliography, p. 46-50.)

World weather records, collected from official sources by Felix Exner, G. C. Simpson, Gilbert Walker, H. Helm Clayton, and R. G. Mossam. Assembled and arranged for publication by H. Helm Clayton; published under a grant from John A. Roebling. Washington, D. C., Smithsonian Institution, Aug. 22, 1927. 1,197 p. (Smithsonian Miscellaneous Collections v. 79 (whole volume) (Publication 2913).

#### PERIODICALS

Coleopterologische Rundschau, hrsg. von Adolf Hoffman. v. 1-12. Wien, Adolf Hoffman, 1912-1926.

Coleopterologisches Centralblatt, Bd. 1, Hft. 1-6, Bd. 2, Hft. 1-2. Hrsg. von Hans Wagner. Berlin-Mariendorff, Hans Wagner, March 25, 1926-1927.

Norsk Entomologisk Tidsskrift. v. 1-v. 2, No. 3. Oslo, 1924-1927. Utget av Norsk Entomologisk Forening med Statsbidrag og Bedrag av Nasenfondet. v. 1, issued in 6 hefte, 1920-1924.

Novitates Macrolepidopterologicae. v. 1. Katalog der im "Seitz" nicht enthaltenen und seitdem neu beschriebenen palaearktischen Macrolepidopteren. Hrsg. von Otto Bang-Haas., Dresden-Blasewitz, Staudinger und Bang-Haas, 1926.

Zeitschrift des Osterreichischen Entomologenvereines Wien. v. 1-12, No. 9. Wien, M. Kitt, 1916-Sept., 1927.

